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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,784	03/21/2006	Jochen Wehner	WEHNER1PCT	9555
25889 7590 05/05/2009				
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576				
EXAMINER				
LEONARD, MICHAEL L.				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
05/05/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/572,784

**Applicant(s)**

WEHNER, JOCHEN

**Examiner**

MICHAEL LEONARD

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/US)  
Paper No(s)/Mail Date 02/09/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

Claim 18 is objected to because of the following informalities: The applicant amended all of the previous use claims to "The process...". However, in claim 18, the applicant started the claim with "The process use...." In light of the amended claims, it appears that the "use" should be deleted from the preamble phrase, such as "The process use". Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

Claims 2, 3 and 6-20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,046,297 to *Rosenberg et al.* in view of U.S Patent No. 5,340,652 to *Sondhe et al.*

As to claims 2-3, 6-20, Rosenberg et al. teaches mixing a polyol component comprising a low molecular weight polyol (Column 4, lines 32-39), such as tetraethylene glycol (Column 4, line 37), which is a polyether polyol that has a calculated molecular weight of 194 g/mol and a calculated hydroxyl group concentration of 10.3 mol OH/kg polyol, which falls within the claimed ranges, a high molecular weight polyol (Column 3, lines 60-67) of the general formula  $\text{OH}(\text{RO})_n\text{H}$  wherein R is an alkylene radical (Column 4, lines 1-9). This formula shows there are 2 hydroxyl groups, and with the molecular weight given to be 500-3000 (Column 3, lines 63). The amount of low molecular weight polyol is no more than 20% of the polyol composition (Column 4, lines 42-43). Further, a diisocyanate is mixed (Column 3, lines 38), which is a polyisocyanate. Rosenberg further discloses adding 4,4'-methylene-bis-(3-chloro-2,6-diethylaniline) (MCDEA)

(Column 1 line 64 and column 5, line 63). Rosenberg further discloses curing (Column 6, line 5) and that the final product blend remains flowable for at least 120 seconds and more preferably for at least 180 seconds (Column 6, lines 18-20).

Rosenberg does not expressly disclose bringing the mixture into contact with a synthetic resin not cured or not completely cured. However, Sondhe discloses mixing (Column 13, line 31) a composition comprising an aromatic amine (Column 3, lines 3), and a polyol component and a polyisocyanate component (abstract). Sondhe further discloses upon mixing, the urethane system will immediately commence reaction (Column 13, lines 33-35), therefore it is at least partially cured. Also disclosed is application to an epoxy, which is not fully cured (Column 3, lines 59-62).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the composition of Rosenberg with the process of Sondhe and would have been motivated to do so for such desirable properties as longer pour life, reduced tendency to crack, and reduced presence of toxic free toluene diisocyanate monomers, as evidenced by Rosenberg (Column 1, lines 14-16).

The process of the above combination would implicitly yield a synthetic resin composite material.

As to claim 2, Rosenberg does not directly disclose that the gel coat at 23°C displays an elongation at break of at least 3%, however, because all of the components are present in the composition it is inherent that the composition would have these properties. If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' positions; and (2) it would be the

Office's position that the application contains inadequate disclosure that there is teaching as to how to obtain a composition with these properties.

As to claim 3, Rosenberg does not disclose the polyurethane gel coat is not completely cured. However, at the time of the invention it would have been obvious to a person of ordinary skill in the art to not completely cure the polyurethane gel coat based on the teachings of Sondhe and would have been motivated to do so since this would allow the urethane to bleed and intermingle with the epoxy in order to form chemically fused layers (Sondhe, Column 3, lines 57-68).

As to claims 8-11, Rosenberg discloses MCDEA as the aromatic amine used in the polyurethane mixture. As evidenced by paragraphs 60-63 of the Pre-Grant Publication of the instant application, this particular aromatic amine when subjected to the limitations found in claim 8 of the instant application inherently gives the desired gel time. If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' positions; and (2) it would be the Office's position that the application contains inadequate disclosure that there is teaching as to how to obtain a composition with these properties.

As to claim 11, Rosenberg discloses the basic claimed composition as set forth above. Not disclosed is the amount of aromatic amine in the polyol component. However, Rosenberg does disclose that the selection of the curative is generally based on reactivity needs, property needs for a specific application, process condition needs, and pot life desired (Column 5, lines 55-61). As a result, it would have been *prima facie*

obvious to a person of ordinary skill in the art to select the amount of aromatic diamine used in the polyurethane gel coat to give the desired properties above, in particular pot life and reactivity needs and to further do so for such desirable properties as completely reacted TDI monomers (Rosenberg, Column 2, lines 8-14). A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. See *In re Boesch and Slaney*, 205 USPQ 215.

Claims 4-5 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,046,297 to *Rosenberg et al.* in view of U.S. Patent No. 5,340,652 to *Sondhe et al.* as applied to claim 19 and is applied here as such in view of U.S. Patent No. 3,217,536 to *Motsinger et al.*

As to claims 4-5, Rosenberg teaches the basic process as set forth above. Not disclosed is the synthetic resin contains reinforcing materials. However, *Motsinger* discloses a polyurethane coating on an epoxy resin laminated with fiberglass (Column 3, line 66, column 4, and line 1). It would have been obvious to a person of ordinary skill in the art to combine the fiberglass laminated epoxy of *Motsinger* with the composition of Rosenberg and would have been motivated to do so for such desirable properties as to provide strength and weather protection (*Motsinger*, Column 4, and lines 1-14).

Claim 21 is rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,046,297 to *Rosenberg et al.* in view of U.S. Patent No. 5,340,652 to

Sondhe et al as applied to claim 20 and is applied here as such in view of U.S. Patent No. 3,217,536 to Motsinger et al.

As to claim 21, Rosenberg discloses the basic material as set forth above. Not disclosed is that it is part of a wind vane. However, Motsinger discloses a similar material on a wind vane, in that it measures wind currents (Column 1, lines 50-55). It would have been obvious to a person of ordinary skill in the art to combine the use of Motsinger with the composition of Rosenberg and would have been motivated to do so since a wind vane needs to be strong and weather resistant (Motsinger, Column 4, lines 1-14).

### ***Double Patenting***

Claims 2-3, 5, 8-21 are provisionally rejected on the ground of nonstatutory double patenting over claims 2-19 of copending Application No. 10/572785. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Both disclose the process of forming a gel coat using a polyurethane made from a mixture of polyols, aromatic amines, and polyisocyanates. Both further disclose partial curing of the polyurethane before application onto a synthetic resin to produce a gel coat. Some difference lie in the aromatic amine, copending application requires the aromatic amine to be light

resistant, however, both applications claim the same aromatic amine and this it would have been obvious that the pending applications' aromatic amine would have been light-resistant. Pending application claim 8 does not require the particulars of color shade or artificial weathering as disclosed by copending claims 5 and 6. However, these properties are inherently met because both disclose the same aromatic amine. Independent claim 17 of copending application requires molecular weights and the hydroxyl numbers of the lower molecular weight polyols that independent claim 19 does not. However, the pending applicant does require these particulars in dependent form and thus it would have been obvious to a person of ordinary skill in the art that the claims of the pending application read on the claims of the instant application.

### ***Response to Arguments***

Applicant's arguments, see Applicant Arguments/Remarks, filed 02/09/2009, with respect to the rejection(s) of claim(s) 1-21 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6,046,297 to *Rosenberg et al.* in view of U.S. Patent No. 5,340,652 to Sondhe et al. and U.S. Patent No. 3,217,536 to Motsinger et al.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LEONARD whose telephone number is (571)270-7450. The examiner can normally be reached on Mon-Fri 8:00-5:00.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL LEONARD/  
Examiner, Art Unit 1796

/Randy Gulakowski/  
Supervisory Patent Examiner, Art Unit 1796